

7500 Wetlands and Subaqueous Lands

7501 Marina Regulations

1.0 General Conditions

The Delaware Department of Natural Resources and Environmental Control (DNREC) is responsible for protecting, preserving, and enhancing the environmental quality of the water, air, and land of the State. The Department recognizes that water quality protection and improvement is an important goal, particularly in water bodies subject to development pressure with its attendant anthropogenic impacts. This Regulation is intended to deal with such impacts by addressing the potential sources of pollution that may result from the physical presence, construction, or operation of marinas.

The Department's intent in adopting these Regulations is three-fold. First, to apply strict environmental controls over the siting, design, construction and operation of new marinas. The controls shall be most strict in this case because new construction offers the greatest opportunity for proper environmental planning and management.

Second, to allow upgrading of existing facilities in ways which can benefit the environment by imposing reasonable restrictions which would effectively discourage or prevent environmentally detrimental impacts. In this case, it is recognized that physical constraints at existing sites may present insurmountable limitations over the scope of feasible improvements that can occur.

Third, to provide for safe and environmentally sound operation of existing and future marinas through prevention of pollution by good housekeeping procedures.

2.0 Purpose and Scope

- 2.1 Purpose. The provisions of these Regulations shall establish minimum requirements for the siting, design, construction, and operation of marinas to serve the needs of boaters, while properly managing the State's natural resources, and protecting public health. For the purposes of this Regulation, marinas shall be those facilities on or adjacent to the water which provide for mooring, berthing, or storage of vessels, and which include any or all of the related ancillary structures and functions of marinas such as docks, piers, vessel storage areas, boat ramps, anchorages, breakwaters, channels, moorings, basins, vessel repair services, vessel sales, sales of supplies which are normally associated with boating, such as vessel fuel sales, bait and tackle sales, vessel rentals, and parking areas for users of the marina. Marinas can be categorized as recreational operations which are not operated for profit and include planned community marinas, water sports clubs and co-ops, commercial facilities which are operated for profit, or public facilities operated by governmental agencies.

Within the commercial, recreational, and public marina categories, there are general types of marinas that are commonly found in Delaware waters. (Also see Definitions, Section 3.0). These include: full service marinas, vessel repair/maintenance yards, fishing facilities (including charter boat operations), residential or planned community marinas, water sports club marinas, anchorages or mooring fields, and boat ramps.

- 2.2 Applicability. These Marina Regulations shall apply to:
- 2.2.1 Any commercial, public, recreational, or private marina that is on or adjacent to the water and: 1) contains five or more slips, or 2) provides berthing for one or more headboats.
 - 2.2.2 Any vessel maintenance or repair yard that is on or adjacent to the water.
 - 2.2.3 All public or commercial boat ramps.
 - 2.2.4 Recreational boat ramps with five or more slips, or associated upland ancillary facilities such as fueling or vessel maintenance facilities.
- 2.3 Exemptions. These Marina Regulations shall not apply to:
- 2.3.1 Private slips or ramps. Private slips or ramps are exempt from the requirements of this Regulation, except any combination thereof that qualifies as a marina, as described in the Applicability section, above.

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- 2.3.2 Recreational Boat Ramps: Recreational ramps are exempt if they are for the exclusive use of the owner(s), residents, or members and are thus designated, unless additional facilities are provided which qualify the ramp as a marina, as described in Section 2.d, above.
- 2.4 Authority. Authority for these Regulations is in accordance with 7 **Del.C.**, Ch. 60, *Water and Air Resources Act*, 7 **Del.C.**, Ch. 72, *The Subaqueous Lands Act*, 7 **Del.C.**, Ch. 66, *The Wetlands Act* and 7 **Del.C.** Ch. 19, *Shellfish*.
- 2.5 General standards, prohibitions and provisions
- 2.5.1 No person shall construct, install, modify, rehabilitate, or replace a marina unless such person has a valid permit issued by the Department pursuant to these Regulations.
- 2.5.2 Administrative and judicial review under these Regulations shall be in accordance with the provisions of 7 **Del.C.**, Ch. 72.
- 2.5.3 These Regulations, being necessary for the health and welfare of the State and its inhabitants, shall be liberally construed in order to preserve the land, air, surface water, and groundwater resources of the State.
- 2.6 Emergency Conditions. If the Secretary finds that an emergency condition exists which may result in adverse environmental impacts, DNREC may waive appropriate portions of these Regulations, or the conditions of any permit or plan approved and/or issued under these Regulations, in order to deal with the emergency. Economic hardship alone will not be considered an emergency condition.
- 2.7 *Marina Guidebook*. The Department of Natural Resources and Environmental Control maintains a *Marina Guidebook* which contains useful information about the planning, design, and operation of marinas. This guidebook can be used as a public service, as an educational tool, and for technology transfer.
- 2.8 Effective Date. These Regulations shall become effective on March 29, 1990.

3.0 Definitions

- “Activity”** Construction, demolition, or operation, or use of any facility, property, or device. Any dredging, filling, construction of any kind, including but not limited to, construction of a basin, channel, dock, pier, jetty, breakwater, bulkhead, revetment or other marina structure, or human induced or conducted action resulting in the making of a connection to state waters.
- “Alteration”** Any change to an existing marina which would (a) increase the number of slips by five (5) or more, or (b) involve new or additional upland or water-based activities whose construction or operation have the potential to generate pollution. Maintenance of existing serviceable structures shall not be considered an alteration.
- “Ambient”** The background biological, chemical, and/or physical conditions, as measured at a point(s) outside of the influence of the pollution source being studied.
- “Anchorages”** Areas in which vessels are held by means of anchors or similar devices which are removed from the bottom and carried aboard the vessels once they are underway.
- “Best Management Practices”** Methods, measures, or practices that are determined by the Department to be reasonable and cost-effective means for a person to meet certain pollution control needs. Best management practices include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. Best management practices can be applied before, during, or after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.
- “Board”** The Environmental Appeals Board.
- “Boat Ramps”** Facilities which provide access to the water primarily for vessels that are carried on, launched from and returned to trailers.
- “Breakwater”** A structure, parallel to the shore, that protects a shore area, harbor, anchorage, or basin from waves.
- “Bulkhead”** A vertical walled structure or partition intended to retain or prevent sliding of the land, or to provide an interface between land activities and those which occur in the water, or intended to protect the upland against damage from wave action.

“Commercial Marinas”Marinas which are operated primarily for profit.

“Critical Habitat”Areas classified by the Department and that serve an essential role in the maintenance of sensitive species. Critical habitat areas may include unique aquatic or terrestrial ecosystems that support rare, endangered, or threatened plants and animals. Rare, endangered, or threatened species are defined by both state and/or federal listings.

“Dedicated Pumpout Facility” A semi-permanent connection made between a vessel and the shore for the purpose of removing vessel sewage from the vessel holding tank or head on a continuous or automatic intermittent basis to an approved sewage disposal facility.

“Degradation”Any adverse change in surface or groundwater quality or designated uses, as defined in applicable Delaware water quality regulations, including the *Delaware Surface Water Quality Standards* and the *State of Delaware Regulations Governing Public Drinking Water Systems*.

“Department” The Department of Natural Resources and Environmental Control.

“Discharge”Any release, however caused, from a vessel, pier, or other marina facility. This includes any escape, disposal, spillage, leaking, pumping, emitting, pouring, dumping, or emptying.

“Dock”A fixed or floating decked structure where a vessel or vessels may be secured either temporarily or indefinitely.

“Dry Slip”A slip or berth in which the vessel rests in a rack or trailer located on land adjoining the water, rather than in or over the water.

“Dry Stack Marina”A boating facility which stores vessels on dry land, including but not limited to, dry storage facilities, boatels, valet storage, pigeon hole storage, and stackominiums.

“Dump Station”See **Pumpout Facility**.

“Exfiltration Area”An underground stormwater retention area consisting of perforated pipes placed within an underground bed of crushed rock or other pervious granular material.

“Existing Marina”Any marina structures or functions that were in operation or had a valid subaqueous lands lease or permit as of March 29, 1990.

“Finger Pier”A comparatively smaller dock structure attached (usually perpendicular) to a primary pier or bulkhead, usually provided to facilitate access to berthed vessels.

“Fishing Facilities”Facilities which provide slips, anchorages, or mooring fields for charter fishing boats and other fishing operations.

“Gray water”The liquid and water-borne waste derived from vessel galleys, showers, bathroom sinks and tubs, but not including sewage.

“Harbormaster”An officer designated for a particular facility who executes and enforces the 'Rules and Regulations for Marina Users' that are included as part of the Operation and Maintenance Plan for the facility.

“Headboat”A commercial vessel, primarily used for fishing activities that can accommodate more than twenty people.

“Holding Tank”A storage tank for sewage which requires pumping out and is part of an installed Type III Marine Sanitation Device. Holding tanks may also receive and store vessel gray water.

“Intertidal Flat”That shallow water habitat situated between the extreme high and extreme low tidal limits.

“Joint Application Form”The Department's combined application form for subaqueous lands, wetlands and marina projects.

“Live-aboard vessel”

- A vessel used principally as a residence.
- A vessel used as a place of business, professional or other commercial enterprise and, if used as a means of transportation, said transportation use is secondary or subsidiary use.
- Any other floating structure used for purposes stated above under the above two parts.
- Charter and other similar fishing boats shall not be considered to be live-aboard vessels unless they are residences as described in the first part.

“Maintenance Dredging”Dredging of previously dredged channels, ditches, dockages, lagoons and other waterways to maintain or restore the approach depth and width.

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“Maintenance Wastes”Materials collected while maintaining or operating vessels, including, but not limited to, soot, machinery deposits, solvents, hydrocarbons, scraped paint, deck sweepings, wiping wastes, and rags.

“Marina”Those facilities on or adjacent to the water which provide for mooring, berthing, or storage of vessels, and which may include any or all of the related ancillary structures and functions of marinas such as slips, docks, finger piers, piers, berths, upland vessel storage areas, boat ramps, anchorages, shore stabilization structures, breakwaters, channels, moorings, basins, vessel repair services, vessel sales, sales of supplies which are normally associated with boating (such as fuel, bait and tackle), vessel rentals, and parking areas for users of the marina.

“Marine Sanitation Device”Any equipment utilized on board a vessel which is designed to receive, retain, treat, or discharge sewage, and any process to treat such sewage. Marine sanitation devices, as defined by 7 **Del.C.** §6035, are classified as:

Type I Marine Sanitation Device - A device that produces an effluent having a fecal coliform bacteria count not greater than 1,000 per 100 milliliters and no visible floating solids.

Type II Marine Sanitation Device - A device that produces an effluent having a fecal coliform bacteria count not greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter.

Type III Marine Sanitation Device - A device that is designed to prevent the overboard discharge of treated or untreated sewage or any waste derived from sewage. A Type III MSD is a no direct discharge device. A Type III MSD shall include both portable and permanently installed MSD devices.

“Minimum Navigable Depth”The minimum depth, at mean low tide, that is required for safe navigation by vessels.

“Mooring Fields”An area in which vessels are held by means of mooring buoys or similar devices which are fastened to stationary underwater devices which are not carried aboard the vessels as regular equipment. Mooring fields have no direct access from land and the moored vessels can only be reached through the use of small dinghies or other vessels.

“Most Probable Number (MPN)”An index of coliform bacteria as defined in the 1989 edition of *Standard Methods for the Examination of Water and Wastewater*, which is published jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation.

“Oil”Oil of any kind and in any form including, but not limited to, petroleum products, tank bottoms, oil refuse, oil mixed with other wastes, and all other liquid hydrocarbons regardless of specific gravity.

“Pier”A structure in, on or over subaqueous lands which is used by the public primarily for fishing, crabbing, swimming, or viewing. A pier shall not include vessel berthing use unless specifically designated as such.

“Private Slips or Ramps”Facilities that are not part of a residential or planned community marina, serve a single residence, and are constructed exclusively for the personal use of the occupants of that residence.

“Public Marinas”Marinas owned by governmental agencies and operated with their own personnel or through a concession or other agreement with a private entity.

“Pumpout Facility”A mechanical device which is temporarily connected to a vessel for the purpose of removing vessel sewage from its holding tank or head to an approved sewage disposal facility.

A **Dump Station** is a type of pumpout facility which receives vessel sewage from portable marine sanitation devices and from which sewage is delivered or transferred to an approved sewage disposal facility. See also **Dedicated Pumpout Facility**.

“Recreational Marinas”Recreational marinas include residential or planned community marinas, water sports club marinas, and all other marinas which are not commercial marinas or public marinas.

“Recreational Water Use Area”An area specifically designated by the Department for waterbased recreational use, including but not limited to, fishing, clamming, water skiing, sailboarding, snorkeling, diving, rowing, swimming, and boating.

“Residential or Planned Community Marinas” Groups of 5 or more slips that are contiguous, are for the exclusive personal use of the adjoining upland residents, and:

1. are constructed, owned, operated, or maintained jointly; or
2. are created as a unit or common element under the Unit Property Act, 27 **Del.C.** Ch. 22.

Residential or planned community marinas are usually (but not always) part of a single, overall development plan and/or are designed to share common facilities such as docks, walkways, pilings, or an entrance channel. They are distinguishable from commercial marinas because they do not have commercial operations or support facilities and are for the exclusive use of the residents of the adjoining upland property.

“Retention” Prevention of the discharge of a given volume of stormwater runoff into surface waters of the State accomplished through on-site storage of a specified quantity of rainfall and/or runoff, with provision for controlled release of water in excess of the stored volume.

“Revetment” A sloping structure made of stone, concrete, or other material, and built to protect a shoreline, scarp, embankment, or structure against erosion by wave action or currents.

“Riprap” A layer, facing, protective mound of stones, or other durable material placed to prevent erosion, scour, or sloughing of a structure or embankment. Also, the stone or other material so used.

“Secretary” The Secretary of the Department of Natural Resources and Environmental Control.

“Sewage” Human body wastes and wastes from toilets and other receptacles intended to receive or retain human body wastes.

“Shellfish” Any edible mollusks or crustacea including oysters, clams, lobsters, mussels, whelks, crabs, and shrimp.

“Slip” A place where a vessel may be secured to a fixed or floating structure, including, but not limited to, a dock, finger pier, or mooring. Anchorages may also be included if they provide non-transient berthing for vessels. Slips may be wet (in the water) or dry (in a rack or other device on land).

“Solid Waste” Any garbage, refuse, sludge, or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from commercial operations or from community activities. Solid waste does not include solid or dissolved material in domestic sewage or discharges which are point sources that are subject to permits.

“Structure” Any man-made object including, but not limited to: piers, slips, docks, breakwaters, revetments, or bulkheads.

“Subaqueous Lands” Submerged lands and tidelands, as defined by 7 **Del.C.**, Ch. 72 and 7504 *Delaware Regulations Governing the Use of Subaqueous Lands*.

“Submerged Aquatic Vegetation” Vascular plants rooted in the sediment and permanently growing on or below the surface of the water. Submerged aquatic vegetation does not include emergent wetland species.

“Subtidal Flat” A shallow water habitat situated below the extreme low tidal limit.

“Support Facilities” Installations or services that support the functions of a marina, such as utility services, fueling stations, repair and launching facilities, the marina headquarters, parking, retail facilities catering to the boating and aquatic recreational needs of marina users, and restrooms, showers, and laundries.

“Tidal Flushing” The exchange of waters within a confined area, such as a marina basin, with water from a larger adjoining water body; such exchange being due to the rise and fall of the tide, and/or wind circulation with accompanying mixing of the water.

“Transient Mooring” Anchorage or mooring periods less than forty-eight hours.

“Uplands” Lands of elevations above the current mean or ordinary high water mark and which are not classified as **wetlands**.

“Upland Basin Marina” Any marina constructed by excavating or dredging uplands.

“Vessel” Every type of watercraft, boat, houseboat, or other form of man-made contrivance used, or capable of being used, whether or not capable of self-propulsion, for navigation on the waters of the state.

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“Vessel Repair/Maintenance Yards” Any facility which provides for the new construction, repair or maintenance of vessels.

“Wastewater”The liquid and water-borne human and/or household waste derived from residential, industrial, institutional, or commercial sources, including vessels.

“Water Pollution”The man-made or man-induced alteration of the natural chemical, physical, biological, and/or radiological integrity of water.

“Water Sports Club Marinas”The facilities used by people associated for the common purpose of engaging in any manner of water sports. Such facilities are normally made available to dues-paying members only. Examples include sailing clubs, fishing clubs, waterskiing clubs, and rowing clubs.

“Waters of Exceptional Recreational or Ecological Significance” Waters which are specifically classified in *7401 Delaware Surface Water Quality Standards* as important, unique, or sensitive from a recreational and/or ecological perspective.

“Waters of the State”All surface waters of the State as defined in *7401 Delaware Surface Water Quality Standards*.

“Wetlands”Wetland areas as defined by the State Wetland Act or the State Freshwater Wetland Act.

“Wet Slip”A berth or slip space in the water.

4.0 Permits and Approvals

4.1 Applicant. An Applicant shall be the property owner of record, lessee, or designated representative thereof, of any marina for which a permit application or operation and maintenance plan is filed. If the applicant is not the record owner or lessee, the applicant must demonstrate that he shall become one or the other before the permit is issued or the operation and maintenance plan is approved.

4.2 Construction of New Marinas or Alteration of Existing Marinas

4.2.1 All construction for new marinas and for alterations to existing marinas shall require a marina permit from the Department. The applicant shall be responsible for obtaining any other local, state, or federal permits or approvals that may be required for the proposed construction or alteration.

4.2.2 All applications for permits for construction or alterations shall be in a form approved by the Department.

4.2.3 Applicants shall provide a Siting and Design Study (SDS) for new marina applications. The SDS studies or investigations shall be site-specific. The type of studies or investigations that are necessary to prove environmental safety and support an application shall be based upon the existing ecological conditions, including physical, biological, and chemical characteristics of the site, the existing hydrological conditions, the existing marinas in the area (demand for, capacity of, type and quality, etc.), and other site qualities such as required under Section II, *Requirements for Siting and Designing New Marinas*. All proposals for study or investigation shall be presented to the Department for review and shall be based upon sound scientific principles. Such proposals shall be modified, if warranted, based upon Department comments prior to initiation. The studies shall be conducted by individuals qualified to utilize methods of collection and analysis which are recognized and accepted by the Department.

4.2.4 The individuals recognized as acceptable to the Department for data collection, analyses, studies, and investigations shall have experience with techniques generally recognized by experts in the field. Ecological studies shall be conducted by individuals experienced and educated in ecological relationships typical of the waterbody in question (fresh, brackish, tidal, estuarine, or oceanic). Chemists, engineers, hydrologists, toxicologists, economists, architects, land planners, etc., shall also be educated and experienced in their particular field as it pertains to the specific characteristics of the proposed project.

4.2.5 Supplemental studies or investigations to support the SDS may be required by the Department.

4.3 Permit Processing Procedures

- 4.3.1 Pre-application Meetings. If requested by the Applicant, the Department will conduct pre-application meetings to discuss the requirements for a particular project, prior to preparation of the marina permit application.
- 4.3.2 Application Review and Processing Procedures
 - 4.3.2.1 Review Criteria. The Department will evaluate permit applications based on their predicted impacts to Delaware's land, water, underwater, and air resources in order to ensure proper management, protection, conservation, and utilization of those resources in accordance with 7 **Del.C.**, Ch. 60, 66 and 72.
 - 4.3.2.2 Incomplete Applications. The Department will first review applications to determine if they are reasonably complete and will return incomplete applications to the applicant. An active file will not be created for returned applications.
 - 4.3.2.3 Active/Inactive Applications. If an application is determined to be reasonably complete, but additional information is subsequently requested by the Department and the applicant fails to provide that information within 180 days of receiving such request, the application will be considered to be inactive. Exceptions may be granted for cases in which the data or information requested cannot reasonably be supplied within the 180 day period. The Department may return inactive applications. Once an application has been returned, the applicant must submit a new application in order to re-activate the file, including payment of any fees that are required for new applications.
 - 4.3.2.4 Public Notice: Upon receipt of an application which is determined to be reasonably complete, the Department will:
 - 4.3.2.4.1 Advertise receipt of the application in two (2) newspapers of statewide circulation.
 - 4.3.2.4.2 Receive public comments for 45 days from the date of notice.
 - 4.3.2.4.3 Allow the applicant to respond to questions posed by the Department and the public within the time period defined for active applications.
 - 4.3.2.4.4 Publish a public notice of the final completed application.
 - 4.3.2.4.5 Receive requests for a public hearing and additional comments for 20 days from the date of notice.
 - 4.3.2.5 Public Hearing
 - 4.3.2.5.1 If a meritorious request for a public hearing is received or if the Department decides that a hearing would be in the public interest, applicable procedures for notice and conduct will be followed in accordance with 7 **Del.C.**, §§6006, 6609 and 7207. The costs of such hearings shall be charged to the applicant. These costs may include the costs of publication of the notice of the hearing, charge for the hearing room, if any, costs for recording, transcription, and copying the proceedings, and other costs directly related to the hearing. No charge will be made for the salaries and expenses of the public officials involved in the hearing.
 - 4.3.2.5.2 Final Issuance or Denial of Application. Following the receipt of public comments and/or a public hearing if held, the Department will make a final evaluation of all information on record for the project and will either issue a permit or deny the application. Once a denial has been issued, any subsequent submittals will be considered as a new application requiring payment of appropriate fees.
- 4.4 Fees. Each application shall be accompanied by a non-refundable application fee established by the General Assembly. This fee shall cover the costs of handling and evaluating the application, and other expenses of administering the marina program. In accordance with 7 **Del.C.**, §6003(h), no fee will be required when the applicant is a state or federal government agency or political subdivision of the State of Delaware.
- 4.5 Enforcement and Penalties. The provisions of this Regulation shall be enforced by the Secretary as provided in 7 **Del.C.**, §§6005, 6013, 7214 and 6617. Such enforcement may include revocation of any permit for cause. The failure of the Department to enforce any of the

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provisions of this Regulation shall not constitute a waiver by the Department of any such provisions.

4.6 Appeal to the Board

4.6.1 As provided by 7 **Del.C.**, §6008, any person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board (Board) within 20 days after the Secretary has announced the decision.

4.6.2 As provided by 7 **Del.C.**, §7210, a decision by the Secretary to deny a permit on any matter involving state-owned subaqueous lands, cannot be appealed to the Board.

4.7 Appeal from the Board's Decision

Any person aggrieved by any decision of the Board, may appeal to the Superior Court for the county in which the activity in question is principally located by filing a petition as provided in 7 **Del.C.**, §6009. Such petition must be made within 30 days of the Board's decision.

4.8 Variance. The Secretary may, upon request by the applicant, grant a variance from any section of this Regulation as provided in 7 **Del.C.**, §6011 after following the notice and public hearing procedures outlined therein.

5.0 Applicable Standards and Codes

Applicable provisions of the most recent versions in effect on the effective date of these Regulations are hereby incorporated by reference and shall be a part of this Regulation.

5.1 National Fire Protection Association (NFPA) 13, *Standard for the Installation of Sprinkler Systems*;

5.2 NFPA 30, *Flammable and Combustible Liquids Code*;

5.3 NFPA 30A, *Automotive and Marine Service Station Code*;

5.4 NFPA 70, *National Electrical Code*;

5.5 NFPA 302, *Fire Protection Standard for Pleasure and Commercial Craft*;

5.6 NFPA 303, *Fire Protection Standard for Marinas and Boatyards*;

6.0 Subaqueous Lands Requirements

All new marinas or marina alterations must comply with subaqueous lands requirements as described in 7 **Del.C.**, Ch. 72 and the *7504 Regulations Governing the Use of Subaqueous Lands*. Where the construction of marinas or ancillary facilities require the use of public subaqueous lands to fully effectuate the operation of the facility, the Department will require such mitigation as may be appropriate under 7 **Del.C.** Chapter 72 and *7504 (see above) Regulations Governing the Use of Subaqueous Lands*.

7.0 Consistency with Zoning Plans

The applicant shall provide evidence of zoning approval for proposed marina projects. The Department may defer consideration of an application if it determines that substantive questions regarding the zoning status for the proposed project actions are raised in a zoning appeal.

8.0 Other Regulatory Agencies

Compliance with these Regulations does not relieve any person from complying with the laws, rules, regulations, and requirements imposed on the same lands, uses, structures, facilities, or other appurtenances by local, State, and Federal government agencies, or other divisions within the Department.

9.0 Severability

If any part of these Regulations or their application is held invalid or unconstitutional, the application of that part to other persons or circumstances and the remainder of these Regulations shall not be affected.

10.0 Bonding

- 10.1 Requirement. Applicants may be required to obtain a secured bond, or other surety acceptable to the Department, including an irrevocable letter of credit or money in escrow, that shall be sufficient to hire an independent contractor to complete any conditions imposed, or to effect any limitations, or to restore the project area to its original condition in the event of a failure by the applicant to comply with the conditions or limitations of the marina construction permit. Bonds may be required for compensation projects, see Section 11.3.10.
- 10.2 Amount. Bonds shall be posted in an amount equal to 115 percent of the estimated cost of the activity.

11.0 Requirements for Siting and Designing New Marinas

This section describes the requirements, restrictions, and limitation criteria for new marina development. Requirements for the construction of new small marinas (25 slips or less) and minor alterations to existing marinas are identified in Section IV of this Regulation. New marina applications must include a Siting and Design Study that demonstrates how the proposed marina meets the criteria of this section. The Department will review all permit applications to determine if the project will comply with the *Delaware Surface Water Duality Standards* and other applicable State regulations. The Department will deny a permit if the permit application fails to demonstrate to the Department's satisfaction that the siting, design, construction, and operation of the marina will comply with all applicable State regulations.

- 11.1 Siting and design
 - 11.1.1 A Siting and Design Study (SDS) must be submitted for each project. The SDS must assess the impacts of all the Environmental Siting Considerations and Planning and Design Requirements identified in Sections 11.4 & 11.5, below.
 - 11.1.2 The SDS shall examine all facets of a project. The primary objective of the SDS shall be avoidance of impacts. It shall document all efforts to avoid adverse impacts, and to minimize and offset unavoidable adverse impacts to aquatic and terrestrial resources. Such documentation shall be in the form of an objective alternatives analysis that satisfies this sequencing of review criteria and provides an evaluation of practicable alternate sites and/or designs for Department consideration.
 - 11.1.3 All designs that include water-based vessel storage must be accompanied by alternatives that explore various combinations of wet and dry vessel storage. At least one alternative which uses only land-based vessel storage must be evaluated.
 - 11.1.4 Facilities which must comply with the Federal Aid in Sportfish Restoration Act (Dingell-Johnson Program), may substitute documents which satisfy these federal program requirements in place of the Siting and Design Study required by this Regulation. Substitute documentation shall be reviewed by the Department in the same manner as a Siting and Design Study by using the criteria described in Section II.C., below.
 - 11.1.5 Siting and Design Studies shall not be required for alterations to existing facilities if:
 - 11.1.5.1 They are located on freshwater impoundments, and
 - 11.1.5.2 They provide service for human or wind powered craft only.
- 11.2 Review criteria
 - 11.2.1 These Regulations set forth rebuttable presumptions that:
 - 11.2.1.1 alternatives that do not involve the use of state waters for storage of vessels have less adverse impact on the aquatic environment, and
 - 11.2.1.2 alternatives that do not involve the use of state waters for storage of vessels are available.
 - 11.2.2 In evaluating the SDS the Department must first determine whether the applicant has demonstrated that:
 - 11.2.2.1 potential impacts have been or can be avoided to the maximum extent practicable when considering existing technology, infrastructure, logistics, and costs in light of overall project purposes, and
 - 11.2.2.2 impacts have been or can be minimized to an extent practicable and appropriate to the scope and degree of those environmental impacts, and

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- 11.2.2.3 any unavoidable impacts to aquatic and terrestrial resources have been or can be compensated for to an extent that is practicable and appropriate.
- 11.2.3 The Department will also consider the public interest in any activity which might affect the use of subaqueous lands including, but not limited to, the following:
 - 11.2.3.1 The potential effect on the public with respect to commerce, navigation, recreation, aesthetic enjoyment, natural resources, and other uses of the subaqueous lands.
 - 11.2.3.2 The extent to which any disruption of the public use of such lands is temporary or permanent.
 - 11.2.3.3 The extent to which the public at large would benefit from the activity or project and the extent to which it would suffer detriment.
 - 11.2.3.4 The extent to which structures that extend over subaqueous lands are dependent upon water access for their primary purpose. Restaurants, decks, residences, and other non-water dependent structures that extend over subaqueous lands shall not be authorized by these Regulations.
- 11.2.4 The Department will only issue a permit for the alternative found to be the least environmentally damaging practicable alternative. Appropriate and practicable steps to avoid and minimize adverse impacts will be required through project modifications and permit conditions.
- 11.2.5 The Department may determine that the environmental impacts of a project are so significant that, even if alternatives are not available, the application should be denied regardless of the compensatory mitigation proposed by the applicant. In making its determination, the Department will prepare a report which documents the reasons for the denial.
- 11.3 Environmental siting considerations. The Department's review of all permit applications will include consideration of the following:
 - 11.3.1 Vessel Storage

Any permit application, except as allowed in Section IV, below, that involves water based vessel storage (wet slips) must demonstrate to the Department's satisfaction that:

 - 11.3.1.1 no practicable and appropriate comparable land-based vessel storage alternatives exist, or
 - 11.3.1.2 that available land-based alternatives have an equal or greater adverse impact on the aquatic environment than comparable water-based vessel storage alternatives.
 - 11.3.1.3 When evaluating comparability, the Department will consider number of slips, location, intended use, and proposed ancillary facilities.
 - 11.3.2 Water Quality Assessment
 - 11.3.2.1 Policy Statement. It is the policy of the Department to prevent degradation of the surface and groundwaters of the State which might result from any pollutant source, so that all existing water designated uses are maintained and protected. Marinas shall be permitted only if they do not cause a violation of established Delaware water quality regulations.
 - 11.3.2.2 Requirements. In order to meet the policy objectives stated in (a), above, the applicant must provide, as part of the Siting and Design Study, a documented and valid water quality assessment of the potential impacts of the design, construction, and operation of the proposed marina. At a minimum, the assessment must explicitly address fecal coliform and dissolved oxygen surface water quality standards. Other parameters may be required by the Department if there is a documented concern. At a minimum, a valid assessment will include appropriate modeling, monitoring, and data analysis to determine the following:
 - 11.3.2.2.1 the flushing characteristics of the proposed marina;
 - 11.3.2.2.2 the spatial extent of the shellfish harvest closure zone; the closure zone shall be clearly indicated on an appropriate U.S.C.G. chart of the area (see also Section 11.3.5.2, below)

11.3.2.2.3 the 24 hour average dissolved oxygen concentration and the one hour (or instantaneous) minimum dissolved oxygen concentration both inside the marina and in adjacent ambient waters.

11.3.2.3 Conditions. For each of the items described above, the analyses shall be conducted based on the following conditions:

11.3.2.3.1 Average ambient water temperature and salinity for the critical season of marina operation. The critical season is defined as the season which has the highest potential for adverse water quality impacts. The critical season will be assumed to be the late summer months unless the applicant or the Department can document a more critical time period.

11.3.2.3.2 For tidally influenced sites, the average tidal conditions (high and low tide elevations, tide range, and current velocities) for the critical season of marina operation.

11.3.2.3.3 Sediment Oxygen Demand rates of at least 1.0 gm/sq m/d at 20 degrees C. This base rate will be adjusted to the temperature of the analysis based on the following formula:

$$SOD_T = SOD_{20} (1.065)^{(T-20)}$$

Where:

SOD_{20} - SOD @ 20°C

SOD_T - SOD at temperature of analysis

T = Temperature °C

A higher base rate may be required by the Department if there is documented evidence that higher SOD rates exist at the site.

11.3.2.3.4 Seasonal average ambient BOD and concentrations of the adjacent receiving waters.

11.3.2.3.5 Seasonal 24 hour average ambient dissolved oxygen concentrations of the adjacent receiving waters.

11.3.2.3.6 Atypical instantaneous minimum and maximum dissolved oxygen concentration determined by continuous dissolved oxygen, temperature, and salinity monitoring of the adjacent waters at the site. The monitoring should be conducted during the season of interest. Temperatures should approximate the average seasonal temperature in 11.3.2.3.1 above.

11.3.2.3.7 Additional or alternative conditions may be required or approved by the Department if there is documented evidence that the additions or alternatives are appropriate.

11.3.2.4 Each assessment shall include documentation of all water quality data and calculations relevant to these items. Additional guidance regarding water quality assessments can be found in the *Marina Guidebook*.

11.3.2.5 The Department may require the applicant to implement a water quality monitoring plan for the periods of time prior to construction, during construction, and after construction. The determination of whether a water quality monitoring plan is required will be made by the Department based upon the ecological sensitivity of the proposed site and the potential for violation of Delaware water quality regulations. The Department will weigh costs versus benefits when determining what is practicable and appropriate.

11.3.3 Cumulative Impacts

The Department shall reserve the right to consider the cumulative impacts of clusters of proposed new and existing developments in a finite receiving water body. Therefore, even in cases where such projects, if considered alone, would comply with applicable State regulations, the Department may still deny an individual application or applications, or may require each applicant to make modifications so that the cumulative impacts of the projects shall not cause violations of State regulations.

11.3.4 Wetlands

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- 11.3.4.1 No activity shall occur in wetlands without first obtaining a permit from the Department pursuant to The Wetlands Act (7 **Del.C.**, Chapter 66) and *7500 Wetlands Regulations*.
- 11.3.4.2 It is the policy of the State to preserve and protect public and private wetlands and to prevent their despoliation and destruction consistent with the historic right of private ownership of lands. Therefore, the Department shall strictly regulate the location of marinas in wetlands. Marinas shall be limited to those sites where applicants can demonstrate that short and long-term adverse impacts to the biological, chemical, and physical integrity of wetlands and their functions have been avoided, and that unavoidable impacts have been minimized and can be compensated for.
- 11.3.4.3 Before the Department allows disturbance of wetlands, the applicant shall demonstrate that all practicable alternatives to avoiding wetland impacts have been thoroughly examined and the results of such examinations shall be provided to the Department. In all cases, the applicant shall demonstrate that the purchase of additional property to avoid the wetland impacts is impracticable.
- 11.3.4.4 If wetlands impacts cannot be avoided, and the applicant has demonstrated that wetland impacts have been minimized, the Department may allow compensation. Compensation plans must provide for the creation or restoration of an area of wetlands that is of equal or greater value than the area that will be disturbed or destroyed so that there is no net loss of wetlands. Compensation requirements are more fully described in Subsection 11.3.10 *Mitigation Measures*.
- 11.3.5 Shellfish Resources

The Siting and Design Study shall include a description of all measures taken to first avoid, and then minimize unavoidable impacts to shellfish resources. The Department will consider the following impacts of proposed marina facilities on shellfish resources:

 - 11.3.5.1 Impacts on the organisms themselves, including their ability to survive, grow and propagate, without regard to potential use by humans; and
 - 11.3.5.2 Impacts that may cause a violation of Reg. 7401 *Delaware Surface Water Quality Standards*, (including, but not limited to, Sections 3 and 10 of the Standards); and
 - 11.3.5.3 Impacts on the public's ability to harvest and consume edible shellfish species based upon the shellfish growing area classification proposed by the Delaware Division of Public Health for the marina or marina alteration under consideration.
- 11.3.6 Submerged Aquatic Vegetation (SAV). SAV is protected because it provides shelter and a source of food to small aquatic organisms, and because of its ability to filter and remove suspended solids and disperse wave energy.
 - 11.3.6.1 Applicants must demonstrate that short and long-term impacts to SAV have been avoided, and that unavoidable impacts have been minimized and can be compensated for. Marina projects that could cause the destruction of SAV without corresponding compensation as approved by the Department shall not be permitted. Compensation measures are more fully described in Section 11.3.10 *Mitigation Measures*.
 - 11.3.6.2 Shading of SAV by piers should be avoided.
- 11.3.7 Benthic Resources
 - 11.3.7.1 Benthic resources are protected because of their importance in the food chain and their value as commercial and recreational food sources.
 - 11.3.7.2 The status of a benthic community shall be assessed by the applicant using frequency, diversity, and abundance measures approved by the Department. As a part of this determination, the rapid bioassessment techniques of Luckenbach, Diaz and Schaffner (1989)* as modified by the Department shall be used to characterize benthic communities. Taxonomic and biomass data specific to this methodology shall be collected. The Department may continue to modify this methodology as experience is gained in applying these techniques in Delaware waters.

*Luckenbach, M.W., R.J., Diaz and L.C. Schaffner. 1989. Report to the Virginia Water Control Board. Appendix I. Project 8: Benthic Assessment Procedures. Virginia Institute of Marine Science, School of Marine Science, College of William and Mary, Gloucester Point, VA.

11.3.7.3 The Department may require monitoring of the benthos as a permit condition.

11.3.8 Critical Habitats. Construction of marinas shall not be permitted at sites that are recognized by the Department as critical habitats.

11.3.9 Recreational Water Use Areas. Marinas shall not be permitted at sites which conflict with Recreational Water Use Areas as duly adopted by the State.

11.3.10 Mitigation Measures

11.3.10.1 General

11.3.10.1.1 All mitigation and compensation measures must be reviewed and approved by the Department before a permit can be issued. Department approvals may establish a schedule for completion.

11.3.10.1.2 The intent of this policy is to assure no net loss of aquatic habitat productivity, including flora and fauna.

11.3.10.1.3 When a proposed activity would cause unavoidable disturbance to, or loss of, environmental resources such as those described in parts 11.3.10.2. and 11.3.10.3, below, such disturbance or loss shall be minimized, and any remaining impacts shall be compensated for by the creation or restoration of a comparable or greater area. The area to be created or restored may be reduced if the applicant can prove through the use of Department approved productivity/functional assessment models or other similar and approved methods, that creating or restoring a lesser area will result in no net loss in the environmental value or function of the resource.

11.3.10.1.4 Where the Department permits compensation in area ratios less than those listed in 11.3.10.2.4 and 11.3.10.3.3, because of an applicant's productivity/functional assessment model projections or other studies, post creation/restoration monitoring shall be required of the applicant to validate those projections or studies. In such cases, the Department shall require additional compensation if monitoring indicates that a net loss of environmental value or function has resulted. Additional compensation efforts may be required if the initial compensation effort is not successful.

11.3.10.1.5 Compensation similar in kind and location to the resource that will be disturbed or destroyed is preferred. Proposals for off-site compensation will only be considered if the compensation site is in the same watershed as the resource that will be lost. The Department may also consider proposals for out-of-kind compensation if the proposed compensation would provide equivalent or greater functions and values than the resource that will be disturbed or destroyed.

11.3.10.1.6 The State of Delaware may establish a compensation bank, or license a private compensation bank, which is an area of wetlands or other suitable aquatic habitat(s) that has been created or restored by the State and which may be available for use by potential applicants to meet the compensation requirements of their projects. The costs of creating or restoring an area within the compensation bank, including any land acquisition costs and administrative costs, plus the initial and maintenance costs of the compensation work itself, shall form the basis of the charge to the applicant for use of any credits so established. No lands within the compensation bank shall become the property of the applicant because of any fee paid to use the bank credits.

11.3.10.2 Wetlands

11.3.10.2.1 Compensation may be allowed by the Department to offset unavoidable impacts to existing wetlands. Compensation will only be considered if the applicant has demonstrated avoidance and minimization in accordance with

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Section 11.2.2, above. This may require modification of marina plans, including limiting the number of slips and/or rearranging the marina configuration. When evaluating compensation plans, the Department will consider the functions and values, quality, areal extent, and configuration of wetlands which will be impacted by the activity.

11.3.10.2.2 Wetland functions and values encompass:

11.3.10.2.2.1 Environmental quality values (water quality maintenance, aquatic productivity, microclimate regulation, etc.)

11.3.10.2.2.2 Fish and wildlife values (fish and shellfish, waterfowl and other birds, fur bearers, and other wildlife)

11.3.10.2.2.3 Socioeconomic values (flood control, erosion control, water supply, fishing and hunting, aesthetics, research, education, etc.)

11.3.10.2.3 Marinas shall not be permitted that would adversely impact wetlands without corresponding compensation as required by the Department. Creation of wetlands from existing intertidal or subtidal flats, enhancement of existing wetlands, or transfer of title of existing wetlands (including granting of easements) to a government agency or conservation organization are not acceptable forms of compensation.

11.3.10.2.4 Compensation plans for wetlands shall be considered on a case-by-case basis. A no net loss criterion shall be applied to all activities. Compensation shall be required in the ratio of 2:1 for areas disturbed, except as provided in subparagraph 11.3.10.1.3, above. In no case shall compensation be allowed in ratios less than 1:1 for areas disturbed.

11.3.10.2.5 Compensation shall be with the same species (flora and fauna) and soil types that were disrupted unless alternate species or soil types are approved by the Department.

11.3.10.2.6 Post creation/restoration monitoring shall be required for a minimum of three (3) years after completion of the compensation project. A wetland compensation project shall be considered successful if the plantings have achieved at least 85% of the required density and areal coverage. Functional values for fauna must also achieve 85% of expected abundance, frequency, and diversity. If the compensation measures fail to achieve these requirements within one (1) year, the applicant shall be required to replant and/or take other appropriate measures until success is achieved.

11.3.10.3 Submerged Aquatic Vegetation (SAV) Beds

11.3.10.3.1 Compensation to offset unavoidable impacts to established SAV beds will only be considered if the applicant has demonstrated avoidance and minimization in accordance with Subsection 11.2.2 above. This may require modification of marina plans, including limiting the number of slips and/or rearranging the marina configuration. When evaluating compensation plans, the Department shall consider the functions and values, quality, and areal extent of the SAV which will be impacted by the activity.

11.3.10.3.2 Marinas shall not be permitted in areas that will result in the destruction of SAV beds without corresponding compensation measures as approved by the Department.

11.3.10.3.3 Compensation projects shall be considered on a case-by-case basis by the Department. Compensation shall be required in a ratio of 2:1 for SAV beds disturbed, unless the applicant can demonstrate, through generally accepted methods, that a smaller area will provide the same ecological productivity and function. In no case shall compensation be allowed in ratios less than 1:1 for areas disturbed.

11.3.10.3.4 Compensation must employ the same species (flora and fauna) as the ones disturbed, or alternate species as approved by the Department.

11.3.10.3.5 A SAV compensation program shall be considered successful if the average density and average shoot height of each of the SAV varieties in the compensation area is the same or greater than the average density and average shoot height of each of the SAV varieties in the bed that was disturbed. If the compensation measures fail to achieve these requirements, the applicant shall be required to replant and/or take other appropriate measures to achieve success.

11.3.10.4 Bonding. To assure that there are funds available for mitigation and compensation, the applicant shall be required to post a ten-year bond or other surety acceptable to the Department including an irrevocable letter of credit or money in escrow, and equal to 200% of the amount adequate to pay for the full mitigation and compensation program. If success, as defined in 11.3.10.2.6 and 11.3.10.3.5. is reached after five years, the bond will be released in its entirety. The Department may release portions of the Bond, if successful compensation is demonstrated after two years but in no case shall the bond be maintained at less than 115% of funds necessary to pay for the full mitigation and compensation program.

11.4 Planning and design requirements

The Department's review of all applications will also include consideration of the following design features:

11.4.1 Marina Flushing

11.4.1.1 Marinas shall be designed to maximize flushing so as to prevent the possible accumulation of contaminants that could result in a violation of *7401 Delaware Surface Water Quality Standards*, and to meet the policy objectives as set forth in II.D.2(a), above. Guidance on suitable methods to determine marina flushing characteristics can be found in the *Marina Guidebook*. The applicant remains responsible for providing the justifications for the model chosen.

11.4.1.2 Marina basins shall be designed so that they do not include square corners or stagnant water areas that tend to collect debris or cause shoaling or flushing problems.

11.4.1.3 Marina basin and access channel depths shall not be deeper than the existing controlling depth of the receiving waterbody and shall be designed to introduce a negative slope (shallow to deep) when moving from the head of the basin toward the receiving waterbody.

11.4.2 Dredging and Dredged Material Disposal. Dredging and dredged material disposal activities shall be in accordance with *7504 Regulations Governing the Use of Subaqueous Lands*, as authorized by 7 **Del.C.**, Ch. 72, and the following. Dredged material disposal activities may also be regulated, depending upon the nature of the spoil material, by *1301 Delaware Regulations Governing Solid Waste* or *1302 Delaware Regulations Governing Hazardous Waste*.

11.4.2.1 Dredging shall be limited to the minimum dimensions necessary for the project and should avoid sensitive areas such as wetlands, shellfish resources, and SAV. *Delaware Surface Water Quality Standards (Regulation 7401)* must not be violated because of dredging operations.

11.4.2.2 The Department may authorize dredging or other marina activities on a seasonally restricted basis in known nursery and spawning areas of important species. Marinas shall not be permitted in areas that would require frequent maintenance dredging, resulting in harm to aquatic life and preventing the recolonization of benthic organisms. Such areas include those which would require maintenance dredging more often than once every four years.

11.4.2.3 Dredging activities shall not be approved until the applicant can demonstrate that both initial and future maintenance dredging demands can be accommodated by the proposed disposal plan. Future maintenance dredging shall be estimated using a project life not less than 30 years unless the applicant can provide good reasons why the project life will be less than 30 years.

11.4.3 Shoreline Protection Structures

Construction of shoreline protection structures shall be in accordance with *7504 Delaware Regulations Governing the Use of Subaqueous Lands*, as authorized under 7 **Del.C.**, Ch.Ch. 72. Shoreline protection structures should be designed to minimize adverse impacts to aquatic resources. When bulkheading is proposed as part of a marina project, the permit application must include an evaluation of alternatives to bulkheading. Such evaluations must demonstrate that no practicable and appropriate alternative to bulkheading exists to effectuate the primary purpose of the project.

11.4.4 Navigation and Access Channels

11.4.4.1 Marinas shall only be located in areas which, in the determination of the Department, offer safe and convenient access to waters of navigable depth. Such locations tend to present maximum opportunities for flushing, with less danger of sedimentation than very shallow sites. Safe and convenient access will be determined on a case-by-case basis. Factors such as existing water depths, distance to existing channels and their depths, and tidal and wave action will be considered.

11.4.4.2 Where feasible, docks and piers shall be extended to navigable depths rather than employing dredging to provide such depths closer to shore. In some cases, limitations on maximum vessel drafts may be necessary. Minimum navigable depths shall be based on the kind of vessels expected to use the marina, but shall not exceed the depths of the receiving waterbody.

11.4.4.3 Alignment of channels shall make maximum practical use of natural or existing channels.

11.4.4.4 Docks, moorings, pilings, and other structures or berthing areas associated with marinas shall be located a minimum of ten (10) feet from a navigation channel.

11.4.4.5 Marina docking facilities shall not extend beyond existing structures in the immediate vicinity unless absolutely necessary to obtain adequate water depths for a water dependent activity.

11.4.4.6 Where adequate water depths exist for water dependent marina structures, berthing areas shall not extend channelward more than 10% of the width of the waterbody at that location, not to exceed 250 feet. In no case shall a structure extend channelward more than 20 percent of the width of the waterbody (as measured from mean low water to mean low water).

11.4.5 Vessel Traffic and Navigation

11.4.5.1 Marinas shall be designed to minimize adverse effects on the existing public and private use of waters of the State. This includes applications for mooring sites (permanent or temporary), speed or traffic reductions, or any other device, either physical or regulatory, that may cause the use of State waters to be restricted.

11.4.5.2 New marinas must be sited and/or designed, to the maximum extent practicable, to afford adequate protection against wakes caused by vessel traffic.

11.4.6 Water Supply

11.4.6.1 Marina construction, maintenance, dredged material disposal, or operation shall not be allowed to contribute substances to groundwater in violation of 7 **Del.C.**, §6003, regardless of whether the affected groundwater is used as a public or private water supply.

11.4.6.2 Marina construction, maintenance, dredged material disposal, or operation shall not be allowed to contaminate a public water supply as defined by *7401 Delaware Surface Water Quality Standards*, whether existing or reserved for future use.

11.4.6.3 When an applicant proposes to construct an upland basin marina, whether through excavation or other means (i.e. connection of an existing landlocked waterbody to tidal waters), documentation must be provided to demonstrate that the basin will not cause intrusion of saltwater into a public or private water supply.

11.4.6.4 Applicants must demonstrate that there is an adequate water supply to serve all of the project's needs, and that all required permits and/or approvals can be

obtained for the proposed method of water supply, whether by well installation, hook-up to an existing water supply system, or other means.

11.4.7 Wastewater Facilities

11.4.7.1 In accordance with 7 **Del.C.**, §6035, discharge of raw, untreated, or inadequately treated sewage from marine sanitation devices into waters of the State, including marina basins, is prohibited.

11.4.7.2 All marinas shall comply with the provisions set forth in 7 **Del.C.**, §6035.

11.4.7.3 Adequate restroom facilities for the use of marina patrons shall be provided to discourage any overboard discharge of untreated or inadequately treated sewage from vessels, and to protect water quality. Toilet facilities shall be constructed in a location that would facilitate their use by the users of the marina. The number of toilets required for any given marina shall be determined by the nature (recreational, public, or commercial) and size of the marina and by its specific configuration. There shall be adequate restroom facilities to serve patrons such that use of shoreside facilities is encouraged. Public restroom facilities will not be required at recreational marinas if every resident who utilizes a slip within the marina can quickly and conveniently travel from the slip to their residence.

11.4.7.4 The applicant shall demonstrate adequate capacity to properly dispose of all sanitary wastes generated by the project.

11.4.7.5 An ample number of signs shall be provided to identify the location of public restrooms and of pumpout facilities or dump stations. Such signs shall also fully explain the procedures and rules governing the use of these facilities.

11.4.7.6 The applicant must demonstrate that proper treatment, storage, or disposal permits have been or can be obtained.

11.4.8 Parking. In the absence of local planning requirements, the following rebuttable presumption is set forth:

11.4.8.1 Dedicated parking spaces should be provided at a rate of 0.50 spaces/slip, plus such additional spaces required by local codes for retail activities, handicapped citizens, residences, and employee parking.

11.4.8.2 The applicant may submit information to the Department in support of an alternative parking space rate. The Department will review such information to determine if the proposed standard is appropriate for use. In the event of a conflict between this requirement and an applicable local building code or requirement, the local code shall have precedence.

11.4.9 Stormwater Management

11.4.9.1 Storm-water runoff becomes polluted with oils, greases, organic and inorganic wastes, and other potentially harmful substances. The movement of these substances into streams and estuaries can have significant adverse water quality impacts. To minimize these impacts, all marina permit applications shall include plans for stormwater management and sediment and erosion control. These plans must be reviewed and approved by the appropriate plan approval agency in order to ensure compliance with 7 **Del.C.**, Ch. 40, *5101 Delaware Sediment and Stormwater Regulations*, and the *National Pollutant Discharge Elimination System (NPDES) Stormwater Regulations*, (40 CFR 122.26).

11.4.9.2 In the event that the proposed marina project is exempted or waived from the requirements of Chapter 40 or the NPDES Stormwater Program, surface water and groundwater quality protection must still be demonstrated by the applicant. In reviewing the plans for stormwater management and sediment and erosion control, the Department will rely upon the water quality provisions of Chapter 40 and *5101 Delaware Sediment and Stormwater Regulations*.

11.4.10 Solid Waste Management. Storage, handling, and disposal of solid wastes shall be in strict accordance with the Department's *Regulations Governing Solid Waste (Regulation 1301)*.

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- 11.4.10.1 Discharge of solid waste, including but not limited to, garbage, maintenance waste, plastics, refuse, and rubbish into waters of the state, including marina basins, is prohibited.
- 11.4.10.2 Solid wastes shall be managed so as to prevent their entrance into any surface or groundwaters of the State.
- 11.4.11 Vessel Maintenance Areas and Activities
 - 11.4.11.1 Vessel maintenance areas shall be sited as far from the water as is practicable, and shall be designed so that all maintenance activities that are potential sources of water or air pollution can be accomplished over dry land and under roof, where practicable, as determined by the Department. Control of by-products, debris, residues, spills, and stormwater runoff shall comply with applicable Department regulations. All drains from maintenance areas must lead to a sump, holding tank, or pumpout facility from which the wastes can later be extracted for treatment and/or disposal by approved methods. Drainage of maintenance areas directly into surface or groundwater shall not be allowed.
 - 11.4.11.2 Maintenance activities including, but not limited to, painting, welding, woodworking, and LPG servicing shall comply with applicable State regulations, as well as with NFPA 303; *Fire Protection Standards for Marinas and Boatyards*.
 - 11.4.11.3 Only biodegradable detergents shall be allowed for vessel washing and cleaning within waters of the State.
 - 11.4.11.4 Waste oils and other wastes generated as a result of maintenance and repair operations shall not be disposed of into ground or surface water.
 - 11.4.11.5 Materials used in maintenance and repair operations shall be stored and handled in accordance with local fire codes or, if none exist, with applicable codes and standards of NFPA and with applicable Department regulations. Such material shall be stored in such a way as to prevent adverse environmental impacts.
- 11.4.12 Fuel Storage and Delivery Facilities
 - 11.4.12.1 Fuels shall be stored and handled in accordance with local fire codes or, if none exist, with NFPA 303, *Fire Protection Standards for Marinas and Boatyards*, and with applicable Department regulations. All vessel fueling operations shall be undertaken at the fueling station or other specifically designated remote location in accordance with NFPA 302, *Fire Protection Standards for Pleasure and Commercial Motor Crafts*.
 - 11.4.12.2 Aboveground and underground fuel storage tank installations shall comply with all State and/or local storage tank regulations.
- 11.4.13 Fire Protection Systems

Fire protection systems shall comply with local fire codes or, if none exist, with NFPA 303, *Fire Protection Standard for Marinas and Boatyards*.
- 11.4.14 Life Safety Equipment. Flotation devices shall be provided at regular intervals throughout the marina to ensure the safety of marina users.
- 11.4.15 Fish Wastes. Fish waste disposal shall be in accordance with 7 Del.C., Ch. 60, and with any applicable Department approved policies.
- 11.4.16 Marina Structures. Marina structures in, on, or over subaqueous lands shall be designed to comply with applicable requirements of 7504 *Delaware Regulations Governing the Use of Subaqueous Lands* and with the following:
 - 11.4.16.1 They shall be designed to minimize adverse impacts on navigation, public use of waters, and natural resources, while allowing the applicant adequate access to waters of navigable depth.
 - 11.4.16.2 They shall not significantly restrict water-flows.
 - 11.4.16.3 The width and length of all structures shall be limited to what is reasonable for the intended use. To the extent feasible, heights and widths should be chosen to minimize shading of vegetation. Shading of SAV should be avoided.
 - 11.4.16.4 Barrier-free access for the handicapped shall be provided for all marina structures when required by federal, state, or local statutes, regulations, or ordinances.

11.4.16.5 They shall have sufficient strength to resist expected dead, live, wind, and impact loads. Adequate consideration shall be made for forces imposed by earth pressures, flowing water, floating objects or debris (including ice), and vessel docking and mooring operations.

11.4.16.6 Marina structures shall not be constructed using creosote treated timber.

12.0 Alterations to Existing Marinas

12.1 General Requirements

12.1.1 Applicants for marina alterations shall comply with all applicable Delaware Laws and Regulations. Applying for an alteration to an existing marina rather than a new marina does not relieve the applicant of responsibility for obtaining any other local, state, or federal permits or approvals that may be required for the proposed alteration.

12.1.2 Applicants for marina alterations shall comply with all requirements of this Regulation except as may be provided for otherwise in the paragraphs below. However, only the newly constructed portions of the marina (whether upland or water-based) must comply with the requirements for new marinas. Upland portions of the original, existing marina that are left undisturbed or are upgraded by the alteration, shall be brought into compliance with the requirements for new marinas only to the extent practicable.

12.1.2.1 Shoreline Protection Structures

Shoreline protection must comply with 7 **Del.C.**, Ch. 72, and *7504 Regulations Governing the Use of Subaqueous lands*.

12.2 Dredging and Dredged Material Disposal

12.2.1 Dredging to enlarge, deepen, or relocate a channel to specifications differing from the previously approved dredge plan shall constitute an alteration and must conform with Subsection 11.4.2.1.

12.2.2 Except as provided in Subsection 11.4.2.1 above, a marina alteration permit is not required for maintenance dredging provided that all spoils are placed in approved areas. However, the applicant shall obtain a letter of authorization pursuant to *7504 Delaware Regulations Governing the Use of Subaqueous Lands* for any maintenance dredging activity.

12.3 Parking. Applicants for marina alterations that include an increase in the number of slips must comply with Subsection 11.4.8 above.

12.4 Stormwater Management. Marina alterations that involve changes to, or disturbance of, the upland portion of the property, must comply with Subsection 11.4.9 of these Regulations for the disturbed or altered portion of the upland property, and to the extent practicable, for the existing, unaltered portions of the property.

12.5 Operations and Maintenance Plan. An updated Operations and Maintenance Plan must be submitted for the entire marina at the time of application. The plan must cover the operation and maintenance of the original, existing portions of the marina, as well as the new, altered portions of the marina.

13.0 Permit Application Requirements for New Construction of Small Marinas and Minor Alterations to Existing Marinas

13.1 In order to reduce environmental impacts by encouraging consolidation of vessel docking facilities, permitting requirements for small, new marinas and minor alterations to existing marinas may be governed under this Section. Applicants for marina projects that meet the applicability criteria described in Section 14.1 below, qualify to submit a modified permit application as described in Section 13.2.

13.2 Applicants who qualify for small marina permitting status are not relieved from complying with the requirements identified in Sections 1.0, 11.0, 12.0 or 14.0 of this regulation. However, small marina permitting status does allow the applicant to submit a marina permit application that has been modified so that application requirements will be less burdensome.

13.3 Applicability

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An applicant may apply for a permit under this Section if the proposed new marina or marina alteration can be described by any one of the following:

- 13.3.1 It is a commercial, recreational, or public marina of more than 4 but not more than 25 slips.
- 13.3.2 It is a commercial or public boat ramp.
- 13.3.3 It is a recreational boat ramp in conjunction with more than 4 but not more than 25 slips.
- 13.3.4 It is a facility that has fewer than five slips, but is classified as a marina because one or more headboats are docked there.
- 13.3.5 It is a minor alteration. Minor alterations are those that expand an existing marina by 25 slips or fewer, or involve no new waterbased structures or activities.
- 13.3.6 In addition to the above five items, the proposed marina or proposed alteration must not include fuel storage or delivery facilities, or vessel maintenance or repair facilities in order to qualify for permitting status under this section.
- 13.3.7 Alterations can only be permitted under this section once unless the proposed alteration expands the marina by fewer than 25 slips, in which case, future alterations may be permitted under this section until the total number of additional slips from the combined alterations reaches 25.
- 13.3.8 If the Department determines that this section does not apply to a proposed marina or marina alteration, the proposed new facility or alteration shall be required to comply with all requirements of the preceding sections of the *Marina Regulations* and shall not be eligible for the small marina permit application and processing procedures identified in Sections 13.2, 13.3, and 13.4, below.
- 13.4 Permit application: modified requirements. The requirements for marina permit applications identified in Sections 1.0, 11.0, 12.0, and 14.0 of this Regulation have been modified in Sections 13.0, 13.2, 13.3 and 13.4 below, to accommodate small new marinas and minor alterations. Applicants for marina projects that meet the applicability criteria described in Section IV.A, above, may submit an application and follow the permit processing procedures that have been modified as described below.
 - 13.4.1 Siting and Design Study
 - 13.4.1.1 Applicants need not provide justification for wet slip vessel and storage as required in Section 11.3.1.
 - 13.4.1.2 The applicant may provide published data representative of site conditions in lieu of site specific field studies to satisfy the requirements of the Water Quality Assessment (Section 11.3.2). If published data is not available, an abbreviated sampling strategy that has been mutually developed and agreed upon by the applicant and the Department may be submitted to satisfy this requirement.
 - 13.4.1.3 The benthic resources assessment required in accordance with Section 11.3.7 need not be performed.
 - 13.4.2 Joint Application Form - All appropriate appendices of the Joint Application Form shall be completed. However, applicants may submit the appendices modified for small marina projects in lieu of the standard appendices.
 - 13.4.3 Operations and Maintenance Plan (O&M Plan) - Applicants for new small marinas may use the Department's Standard Operations and Maintenance Plan and need not prepare a specialized plan. This requirement is satisfied by providing the information required in the Standard Operations and Maintenance Plan Information Sheet (Sheet is obtained from the Department). Water quality monitoring will not be required as part of the O&M Plan for small marinas or minor alterations. Applicants proposing minor alterations to existing marinas need only modify their existing O&M Plan as appropriate.
 - 13.4.4 Fees. The fee for minor, new marinas or, minor marina alterations will apply as appropriate.
- 13.5 Bonding. The applicant will not be required to post a bond for project construction.
- 13.6 Public notice requirements. The initial public notice and 45 day comment period will not be required, for small, new marinas or minor marina alterations. The first public notification will be the 20 day notice, during which requests for a public hearing may be received.

14.0 Marina Operations and Maintenance (O&M) Plan

14.1 Pumpout requirements. Regardless of the number of slips, any marina providing other than transient berthing for any vessel containing a Type III marine sanitation device shall provide access to a sewage pumpout or dump station as required by 7 Del.C., §6035. In addition, the marina owner shall post signs to identify the location of the marina's pumpout/dump stations. If the marina is not required to provide this service, the marina owner shall post a sign identifying the location of the nearest pumpout station.

14.2 Marina operations and maintenance (O&M) plan. This section of the Regulations presents the requirements for obtaining a marina operations and maintenance (O&M) plan. It applies to all marinas in the State of Delaware, whether existing, under construction, or proposed. The intent of the operations and maintenance plan is to address compliance with statutory requirements and permit programs and to protect the aquatic and terrestrial environment. Once the plan is approved, marina owners are responsible for:

- ensuring that marina personnel comply with all aspects of the plan,
- providing copies of the plan to all marina tenants, and
- taking appropriate action to deal with marina tenants who violate any provision of the plan.

14.2.1 Periodic Review and Approval

All marinas governed by this Regulation shall be required to update and submit their previously approved O&M plan for Department review and re-approval based upon the following schedule:

- 14.2.1.1 Marinas with 0-50 slips - due for re-approval four years after O&M plan approval date
- 14.2.1.2 Marinas with 51-100 slips - due to re-approval three years after O&M plan approval date
- 14.2.1.3 Marinas with >100 slips - due for re-approval two years after O&M plan approval date

14.2.2 Standard O & M Plans

- 14.2.2.1 Any existing marina with 50 slips or less which does not contain fueling or maintenance facilities.
- 14.2.2.2 Applicants for the following types of marinas may request a Standard O&M Plan Information Sheet from the Department:
 - 14.2.2.2.1 Any new marina that qualifies for permitting status under Section IV of this Regulation,
 - 14.2.2.2.2 Facilities that have less than 5 slips, but provide dockage for one or more headboats,
 - 14.2.2.2.3 Public, commercial, and recreational boat ramps.
- 14.2.2.3 Upon completion, the standard O&M Plan Information Sheet is submitted to the Department for incorporation into the Department approved Standard O&M Plan. The plan is then returned to the applicant for final signatures. The Department may also request modifications to tailor the standard plan to the particular operation before final approval.
- 14.2.2.4 Applicants owning or operating more than one marina on freshwater impoundments where the marinas are substantially equivalent in size, services offered, and the potential to cause pollution, may submit one O&M plan to cover these facilities.
- 14.2.2.5 Applicants for marinas that must comply with the Federal Aid in Sportfish Restoration Act (Dingell-Johnson Program), may submit documents that satisfy these federal program requirements and cover the intent of the O&M plan, to satisfy the requirements of the O&M plan.

14.2.3 O&M Plans: Required Information

This section describes the minimum information required in the O&M plan. New marinas and alterations to existing marinas must submit a draft plan with their marina permit application and a final plan six months after operation commences. Existing marinas must submit the

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plan within one year of the effective date of this Regulation. Whenever the marina ownership or leasehold changes, the O&M plan must be revised and resubmitted for Department approval.

14.2.3.1 Water Quality Management

14.2.3.1.1 All O&M plans shall include a plan to reduce the seasonal wet storage of vessels to the maximum extent practicable, including dates for autumn vessel removal and spring launching.

14.2.3.2 Stormwater Runoff - All O&M plans shall include a plan for managing stormwater. Included in this plan shall be practicable steps to eliminate-sources of pollution associated with rainfall runoff. For new marinas, the operation and maintenance of all stormwater management facilities and structures shall be discussed. For existing marinas, major retrofitting will not be required. However, where practicable, all activities that may cause or contribute to pollution such as maintenance facilities and storage areas for wastes, or for materials such as solvents, paints, oils, and greases, shall be placed under roof. In all maintenance areas, housekeeping procedures shall be instituted to minimize the accumulation of maintenance wastes and to provide proper storage for maintenance materials. Wherever practicable, vegetated buffer areas between non-porous surfaces and the water should be planted and/or maintained. Owners of existing commercial marinas that provide major vessel maintenance services should install a sand filter or other water quality management practice as a means to treat wastewater from maintenance activities and stormwater run-off.

14.2.3.3 Storage and Handling of all Materials Used in Maintenance. The O&M plan must describe all methods used for material storage and handling. All methods must be in accordance with applicable regulations. Materials of concern include fuels, paints, preservatives, pesticides, solvents, oils, greases, epoxies, corrosive cleaners, and other materials used in the maintenance of vessels or marina structures and facilities.

14.2.3.4 Storage, Handling and Disposal of Wastes. The O&M plan must describe methods for storage, handling, and disposal of wastes. All methods must comply with Department regulations.

14.2.3.5 Shoreline Structures Maintenance

14.2.3.5.1 All maintenance and repair of bulkheads, piers, etc., shall be conducted with minimal adverse impact to the existing aquatic environment, and with prior approval of the Department, when required by the *Delaware Regulations Governing the Use of Subaqueous Lands*.

14.2.3.5.2 The O & M plan shall include a description of techniques that will be used to protect the environment during regular maintenance operations. The *Marina Guidebook* may be used for information on best management practices for shoreline structure maintenance.

14.2.3.6 Emergency Operations. The marina owner/operator shall develop plans of action for the following emergencies:

14.2.3.6.1 Fuel/Oil Spill Prevention and Containment Plans. All marinas that provide fuel facilities shall have a spill contingency plan approved by the Department.

14.2.3.6.1.1 Marina operators shall immediately notify the Department in the event of any oil or fuel spill in accordance with 7 **Del.C.**, §6028.

14.2.3.6.1.2 It is the responsibility of the marina operator to properly contain and clean up any spills that are a result of marina operations in a timely and diligent manner. Mitigation, compensation, and/or remediation of impacts resulting from spills, shall be required by the Department. If the marina operator does not promptly act to clean up the spill, the Department may order a cleanup, compensation, and/or remediation using whatever means are available to it and shall hold the marina operator financially responsible for all costs incurred by the State for the cleanup.

14.2.3.6.2 Sewage Spill Prevention and Containment Plan

- 14.2.3.6.3 Fire
- 14.2.3.6.4 Hurricane/Severe Weather: The hurricane/severe weather preparedness plan shall include, but not be limited to, the following:
 - 14.2.3.6.4.1 Knowledge of local Civil Defense and State Marine Patrol hurricane/severe weather notification practices.
 - 14.2.3.6.4.2 Preparation and distribution to boaters of a copy of marina policies, rules, and regulations regarding severe weather procedures.
 - 14.2.3.6.4.3 Procedures to be used by vessel owners for securing and evacuating vessels in preparation for severe weather events.
 - 14.2.3.6.4.4 Procedures to be used by marina personnel for securing/evacuating marina facilities and any unattended or derelict vessels.
- 14.2.3.6.5 Emergency telephone numbers.
- 14.2.3.7 *Rules and Regulations for Marina Users* (Includes full time slip renters and transient boaters) To ensure compliance with this Regulation, rules and regulations applying to boaters and governing the day-to-day operations and activities at the marina as they relate to environmental pollution shall be included in the marina O&M plan. When developing Rules and Regulations, applicants shall demonstrate consistency with this Regulation. Categories of rules and regulations that shall be addressed include, but are not limited to, the following:
 - 14.2.3.7.1 Restrictions on overboard sewage discharge and rules on the uses of marine sanitation devices and pumpout facilities;
 - 14.2.3.7.2 Boater responsibilities for fuel and sewage spills, clean-up costs, and reporting requirements;
 - 14.2.3.7.3 Proper procedures for vessel fueling operations;
 - 14.2.3.7.4 Proper disposal of waste oils;
 - 14.2.3.7.5 Policies and procedures for removal of oil from bilges;
 - 14.2.3.7.6 Rules pertaining to fire prevention and fire protection;
 - 14.2.3.7.7 Policies and procedures for trash and garbage disposal;
 - 14.2.3.7.8 Policies and procedures for vessel maintenance activities;
 - 14.2.3.7.9 Restrictions on vessel speeds and wake conditions if applicable;
 - 14.2.3.7.10 Marina user responsibilities during emergencies.
- 14.2.3.8 Additional Required Information for O&M Plans
 - 14.2.3.8.1 Tidal Range - Mean high water and mean low water elevation; referenced to National Geodetic Vertical Datum (N.G.V.D.);
 - 14.2.3.8.2 Marina Layout - The location of all property boundaries, public telephones, slips, launching ramps, piers, buildings, roadways, walks, parking areas, vessel storage facilities, extent of roof coverage, and other items deemed appropriate;
 - 14.2.3.8.3 Water Depths - The depth of water at mean low water in all areas used for berthing, mooring, and maneuvering of vessels within the marina;
 - 14.2.3.8.4 Capacities - the size of each berth and dry stack space, including the total number of each type;
 - 14.2.3.8.5 Fueling Facilities Location and Rules - Fuel type, location, and capacity of each storage tank; location and type of each fuel pump; location of emergency cut-off valves on fuel lines and pumps;
 - 14.2.3.8.6 Sanitation Facilities Location and Rules - Location and type of sewage pumpout and dump stations or the location of the nearest pumpout/dump station, including any dedicated pumpout locations for live-aboard vessels; locations of public restrooms; types of facilities employed at the marina for handling wastewater (i.e. sewer, septic, holding tank); cite permit numbers where applicable;

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14.2.3.8.7 Numbers and types of marine sanitation devices on board vessels berthed at the marina. For proposed marinas, this information should be estimated based on anticipated vessel types and sizes.

14.2.3.8.8 Fire Protection Equipment Locations and Rules -Location, size, and capacity of each hydrant, standpipe, or other water supply source; location, type, and capacity of each portable fire extinguisher; location of any fire alarm pull stations;

14.2.3.8.9 Other Rules and Regulations - Additional rules and regulations contained in the approved O & M plan that apply to boaters using the marina.

14.3 Posting of approved plans

Copies of the Department-approved Marina Operations & Maintenance plan shall be distributed to all marina tenants (full time slip renters), and shall be posted in the harbormaster's office or other prominent place within the marina, where it shall be readily available for inspection at all times.

14.4 Water quality monitoring

Marinas may be required to perform water quality monitoring to ensure compliance with Delaware water quality regulations. The determination of whether a water quality monitoring plan is required will be based upon the ecological sensitivity of the site and evidence that water quality regulations may be violated. If monitoring is required, the Department will consider logistics and costs in determining the appropriate nature and scope of the water quality monitoring plan.